



McGill



Enhancing Ecologically Resilient Food Security through Innovative Farming Systems in the Semi-Arid Midlands of Kenya Project

FARMER NUTRITION CHAMPIONS (FNCs) TRAINING REPORT

MARCH 2014

MATUU, NDALLAS HOTEL, KENYA



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2 Background and Introduction

Nutrition education is important for improving quality of life through informed dietary behavior for improved nutritional status and health in the community. There are many misconceptions concerning what is good nutrition in rural communities of the lower midlands of eastern Kenya, with many forgotten but rich traditional sources nutrition abounding in the face of malnutrition. Trading down of nutritious produce for highly processed foods that are bereft of important minerals and vitamins in the pursuit of “good” nutrition is also common place.

Kenya Agricultural Research Institute (KARI) in partnership with McGill University launched a three-year project titled “Enhancing Ecologically Resilient Food Security through Innovative Farming Systems in the Semi-Arid Midlands of Kenya (INREF)” in Machakos and Makueni Counties, which seeks to contribute to improved food security in the hunger-prone communities. This will be achieved by facilitating farmer adoption of proven agricultural technologies that enhance ecological resilience in the face of a changing climate. The outcomes are expected to impact on the livelihoods of the communities involved in various ways, including, an improvement in health and nutritional status. Kenya Medical Research Institute (KEMRI) has therefore partnered with KARI and McGill University to evaluate the nutritional and health status of vulnerable groups, this being women of reproductive age and children in the two counties.

3 Course overview

The main objective of a nutrition training course was to develop a community-owned, sustainable solution through the creation of change agents that will empower the community to attain improved nutritional and health status through behavior change communication. Farmers were selected for the training thus creating a cohort of “Farmer Nutrition Champions” (FNC) to educate and transform their communities to embrace good dietary practices. The course was developed as a training of trainers (ToT) and comprised of basic education on the importance of nutrition, identifying the various food types and creating a balanced diet. Dialogue cards to convey these basic messages were introduced and participants coached on how to use them to effectively disseminate the nutrition training and good dietary practice. An assessment of the community’s prevailing knowledge, attitude and practices was done through focus group discussion with participants prior to undertaking the training.

4 Overall purpose

Goal

The goal of the course is to give participants the requisite knowledge and tools to become Farmer Nutrition Champions in their communities.

5 Participants

The participants targeted for this training were farmers from Machakos County and belonging to farmer groups that are participating in the INREF project. The process of selecting the ‘Farmer Nutrition Champions’ (FNC) was undertaken with support from the KARI research assistant who is assigned the role of overseeing the Project activities on the ground. The onus was left to each farmer group to select the person they thought would be most appropriate.

The Criteria for selection included: 1) Respectable and acceptable to the community. 2) Be able to understand and speak, Swahili, English and Kamba, 3) Be able to create time for the activity on a voluntary basis. Agricultural extension officers working with the farmer groups were also invited and participated in the training.

Farmer Group	FNC representative	Division	Village	FRDA
Ika Wiyike S.H.G	Boniface Kithome	Ikombe	Ndalasyani	Kinyaata
	Catherine Mutuku	Ikombe	Utetani	Kinyaata
Makutano S.H.G	Patrick Muli	Ikombe	Manyanzaani	Kinyaata
	Postine Ngui	Ikombe	Kiundani	Kinyaata
N3K S.H.G	Dorcas Mutuku	Ikombe	Kionyweni	Kinyaata
	Sammy Mulei	Ikombe	Kavutini	Kinyaata
Kenworks Society	Cyrus Kanga	Yatta	Kikwa Nguumo	Ndalani
	Anna Kimote	Yatta	Kikwa Musingi	Ndalani
Wendo wa Mutui	Philomena Nyamai	Yatta	Kaluluini	Ndalani
	Jane Ndolo	Yatta	Kwa Ngila	Ndalani
Mavia Atatu S.H.G	Ziphora Muthoki	Yatta	Mavia Atatu	Ndalani
	Florence Wanza	Yatta	Mavia Atatu	Ndalani
Min of Agric	Athanas Kathuli	Ikombe	N/A	Kinyaata
	Johnstone Musau	Yatta	N/A	Ndalani
	Jackson Nguku	Makueni	N/A	Ikombe

6 Facilitators

The training was jointly facilitated by the KEMRI and KARI Nutrition and Health Stream team. The complete list of facilitators and training support team is hereto attached in appendix 1.

7 Learning objectives

Overall objective

The main objective of the nutrition training course was to educate farmers on nutrition and good dietary practice that is consistent with their subsistence farming context.

Specific Objective

This training aimed:

- To understand community's knowledge, attitude and practice concerning nutrition and dietary practice of children aged 0-36 months being the most vulnerable group
- To provide farmers with basic knowledge on nutrition and good dietary practice for children in particular and the community
- To build the capacity of farmers (FNC) and agricultural extension officers to implement behavior change communication in the community

8 Training methodology

Knowledge, Attitude and Practice (KAP) Assessment: Participants were consented and engaged in focus group discussions to assess their communities' KAP of nutrition and dietary practices. A focus group discussion guide developed to highlight the most vulnerable group of

infant and child nutrition was used (Appendix 6). Findings of this exercise were used to inform the training focus to address participants' gaps of knowledge and behavior change communication strategy.

Didactic Lectures: Principles of adult learning such as training that is participatory, whereby participants gain knowledge and skills that apply to their work receive positive reinforcement and feedback about areas of weakness and share their knowledge and experiences. These methods were employed to deliver basic nutrition education and address key gaps in knowledge that were identified in the KAP.

Use of Dialogue Cards as Communication Tools: Dialogue cards are visual training tools with added Information, Education and Communication (IEC) utility for participants from a training of trainers (ToT) perspective. The dialogue cards used in this training were designed by KEMRI to serve as a FNC's communication tool that will facilitate exploration and discussion of key nutrition-related messages to impact the health and nutrition status of targeted farmers, their families and members of the community at large

Teach-back Methodology: Teach-back is an integrated approach that blends learning training skills with teaching course content. It was structured to follow an experiential learning cycle, using the FNC dialogue cards, group discussions, demonstrations, role plays, practical exercises, and small groups. Participants experienced the same activities they will carry out in the rolling out of the training and in the field.

Facilitators employed the FNC dialogue cards in the course delivery, created a safe environment for Teach-back whereby participants learnt from each other, keeping in mind that everyone has their own training style. Specifically, participants were coached in the facilitation of nutrition education (NE) sessions beginning with introductions which included their name, where they come from and the topic of the teaching. They then brainstormed with the audience on the topic so as to find out what the trainees know about the topic. This enhanced the participant to reach the audience more appropriately. Next they shared the main message using the dialogue cards to steer the discussions, inviting questions from the audience and arriving at the correct answers. In closing, the participant would recap the discussion and summarize the main points for the audience, thank the audience and end the session.

The trainees/participants benefitted from the Teach-back through the development and/or refreshing training skills, receiving feedback on their training skills and enhancing their training style.

Training Programme:

The training program covered the following topics 1) Focus group discussion on the community's nutritional knowledge, attitude and practices; 2) Basic nutrition training; 3) Introduction of dialogue cards 4) Dialogue cards teach-back (Appendix 5)

9 Materials used/provided

Materials Used

Didactic session:

Participants:

- Writing materials: Notebooks and pens
- Dialogue Cards

Facilitators:

- Soft copy of the topics facilitated
- Computer
- Flip charts and markers
- Dialogue Cards

Others:

Registration and evaluation forms

10 Training evaluation

After the training, during the teach-back sessions, the presenters were evaluated for their performance based on delivery, content, body language and use of visual Aids. All the presenters explicitly delivered the content of the materials effectively. From the evaluation, it was noted that it would be useful for the team to develop nutrition notes to support the Farmer Nutrition Champions(FNCs) to ensure that they communicate similar correct and upto date information.

Follow up Nutrition Education sessions on nutrition education

After training the 12 farmers from 6 farmer groups in Machakos County, we requested them to attend the Katangi field day organized for the project and facilitate a farmer education session to their peers. During the field day we gave them the mandate to organize themselves and ensure that each farmer trained at least trained on one dialogue card to the attendees of the field day.

A stand was set up and the nutrition banner used for training on background information on nutrition. The turnout at this particular field day was approximately 300 participants.



Farmers listening to a nutrition session from one of the facilitator _Richard Mutisya

This was an interactive session where farmers listened to the teaching on nutrition and asked questions.



A Farmer Nutrition Champion taking a session with the farmers during the farmer field day- Katangi



A male FNC in a nutrition education session with the farmers in Katangi

The Following table indicated that number of nutrition champions currently trained and equipped with dialogue cards in the two counties of Machakos and Makueni.

Table 2: List of Number of Champions Trained

Dates	Venue	No. of Farmers	Treatment grps	Control-grps	No of farmer groups	MOA Ext Officers	KARI assistant	Total trained (farmers+MOA+KARI)
23-24th Jan 2014	Matuu	12	6	0	6	3	1	16
12-13th Feb 2014	Makindu	13	6	1	7	2	1	16
14-15th Feb 2014	Kathonzweni	18	9	0	9	3	1	22
17-18th Feb 2014	Kathonzweni	10	0	10	10	3	1	14
19-20th Feb 2014	Wote	9	3	3	6	2	1	12
21-22nd Feb 2014	Wote(Kitandi)	17	6	8	14	5	2	24
24 -25th Feb 2014	mwala	18	9	0	9	3	1	22
26-27th Feb 2014	Mwala	10	0	10	10	3	1	14
28 feb-1st Mar2014	Katangi	17	3	11	9	2	1	20
Total		124	42	43	80	26	10	160

11 Recommendations

1. Project team to organize for follow up visits to all the farmer groups whose members have been trained as FNCs to assess their progress and monitor the nutrition education activities
2. All the trained farmer group members will each need to receive a set of the visual aid to support in the trainings which are not limited to the farmer groups only but to the wider farming community as well as any other community gatherings such as Barazas, women groups etc.
3. For Consistency and update, there will be need to have monitoring and Evaluation for the FNCs trained to ensure that the process is systematic.
4. A number of questions were raised in regard to the Non Communicable Diseases. There is therefore the need in future to include nutrition education on non communicable diseases

12 Summary

1. From the sessions attended by the trained FNCs it was evident that the communication to the farmers in attendance was better because it was coming from one of 'their own' and therefore the interactions were open and interesting.
2. Our evaluation of this process indicated that the use of peer to peer education is likely to be more sustainable than when project team members attend the meetings to give one time sessions. The choice of the representatives of the farmer groups is left purely to the farmer groups to make the decisions as long as there are clear guidelines on the requirements.
3. The outcome of this process had the farmers select persons who were also knowledgeable to a certain extend therefore making the process of training easier.

13 [Appendices](#)

Appendix 1: List of Facilitators











Main Facilitators	
Name	Affiliation
Zipporah Bukania	CPHR/KEMRI
Robert Karanja	KEMRI
Richard Mutisya	KEMRI
Supporting facilitators	
Caroline Kioi	KEMRI
Hellen Okochil	McGill University-MSc Student
Irene Mwikali	KEMRI
Charity Gathambiri	KARI Thika
Juster Gitonga	KARI Thika

Appendix 2: Attendance List






KARI/McGILL/KEMRI PROJECT
DIALOGUE CARDS PRETEST WORKSHOP - MATUU NDALLAS, MACHAKOS COUNTY
REGISTRATION FORM

No	Names	ID No	Farmer Group/Institution	Date	Sign
1	Charity Gathambiri	11565276	K.A.R.I	22/11/2014	
2	Juster Gitong'o	20636542	KARI	22/01/2014	
3	Ripporah Bukaria	11591952	KEMRI	22/01/2014	
4	PHILOMENA NYAMAI	5047510	WENDO WAMUTU	22/11/2014	
5	Catherine MUMUKU	20605115	Ka Wikipa MUAHA	22/11/2014	
6	Mestwa Ndambuki	0914677	Wetowwaki	22-1-2014	
7	CAROLINE KIOI	11126427	KEMRI	22-1-2014	
8	ANN MAMENI KIMOTE	9938891	KENWAKI	22-1-2014	
9	FLORENCE WAMZA	14647720	MUWA-ATATI	22/11/2014	
10	Postine M. WAI	12857608	M.L.C.P	22/11/2014	
11	ZIPPHORAH M. MUIA	23050800	MUWA-ATATI	22/01/2014	

KARI/McGILL/KEMRI PROJECT
DIALOGUE CARDS PRETEST WORKSHOP - MATUU NDALLAS, MACHAKOS COUNTY
REGISTRATION FORM

No	Names	ID No	Farmer Group/Institution	Date	Sign
12	BORCAS NDINDA MUTHUKIS	9429183	N8K SHG	22/11/2014	
13	STEPHEN BOGOT	21572153	KEMRI	22/11/2014	
14	MESTAREK K. KAMBA	22116706		22/11/2014	
15	SARICK NRU	1662281	MAKUTANO FOMETER GROUP	22/11/2014	
16	SHAMMY K. MULEI	7364651	N3K. SHP	22/01/2014	
17	BONIFACE M. KITHOME	1466979	MAUNILKA WIKIKE S.H.G.	22/10/2014	
18	ATHANAS M. KATHULI	6135497	M.O.A	22/11/2014	
19	JOHNSON M. MUSTA	0700381	M.O.A	22/11/2014	
20	CEPHUS K. KATHUGA	9707656	KEMUSOKS	22/11/2014	
21	RICHARD MUTHUKIS	2707382	KEMRI	22/01/2014	

KARI/MCGILL/KEMRI PROJECT
DIALOGUE CARDS PRETEST WORKSHOP - MATUU NDALLAS, MACHAKOS COUNTY
REGISTRATION FORM

No	Names	ID No	Farmer Group/Institution	Date	Sign
22	Korari Lobet	1464769	Kemri	22 Jan 2014	
23	Prochi Hauer	25830351	KEMRI	22 nd Jan 2014	
24	Lvne Muskali Nwira	24042312	KEMRI	22 nd Jan. 2014	
25	Jackson Ngunu	6282493	MOTA	22 JAN 2014	
26	Githuiri Muriyira Nanyika	11260817	K.A.R.I - McGill Food Security Research	22 TH JAN. 2014	

Appendix 3: Training Programme: 2 day training of Farmers groups' Peer Educators
Training Agenda: Teach-Back Training on the use of the nutrition dialogue cards

Day 1		
Time	Topic	Facilitator
9.00am – 9.30am	Introductions and objectives of the training	Mutisya/Robert
9.30am – 11.30am	Focus Group Discussions: KAP on nutrition	Zipporah
11.30am – 12.00pm	Tea Break	
12.00pm – 1.30pm	Introduction to Nutrition: Definition of Nutrition, Malnutrition; Forms of Malnutrition, UNICEF Conceptual Framework on causes of malnutrition; Strategies for addressing malnutrition	Mutisya
1.30pm – 2.00pm	Lunch	
2.00pm – 2.30pm	Introduction to nutrition dialogue cards: purpose of the cards, who are the intended users and who are they intended for, when should they be used and why use the cards	Zipporah
2.30pm – 4.00pm	Training on how to use the cards: review each card with the participants, structure of the cards	Zipporah
Day 2		
Time	Topic	Facilitator
9.00am – 9.30am	Recap	Mutisya
9.30am – 10.30am	Training on how to use the cards: Dialogue sessions (group practice using pairs of participants)	Mutisya
10.30am – 11.00am	Tea Break	
11.00am – 1.30pm	Teach-Back using the Dialogue Cards	Zipporah
1.30pm – 2.00pm	Lunch	
2.00pm – 3.30pm	Teach-Back using the Dialogue Cards	Zipporah

Appendix 4: FOCUS GROUP DISCUSSION CONSENT FORM (to be presented to the caregiver after the household survey)

Total Participant time required: 1 hour 30 minutes – 2 hours

Total focus group time: 1 hour 30 minutes – 2 hours

Break: 10 minutes

We would also like to invite you to participate in a group discussion on issues around child feeding practices. The group will consist of other caregivers of children 6-36 months just like you. The purpose for this discussion is to inform us more on dietary and feeding practices of the community. This will help us understand the challenges individuals face in the community in regard to appropriate feeding of our children. Your opinion will be shared with the group who will be encouraged to maintain confidentiality. The discussion will be recorded in order to accurately capture what has been said. The audio recording is password protected hence will be inaccessible for any other person outside this research team. Once the information in it has been used for the intended purposes, it will be destroyed. Everyone will be allowed to speak during the discussion. You may choose how much or how little you want to speak during the group. You may also choose to leave the focus group at any time. The information you will share with us if you participate in this study will be kept completely confidential. Participants will be asked not to use any names during the focus group discussion. Reports of study findings will not include any identifying information.

Participant: ☐ Yes, I will participate in both the survey and focus group discussion

☐ No, I will only participate in the survey.

Name _____ Sign _____ Date _____

Researchers Name _____ Sign _____ Date _____

Appendix 5: FOCUS GROUP DISCUSSION GUIDE

Impact of caregiver's nutritional knowledge, attitude and practices on child's nutritional status: Positive Deviance Approach.

Nutrition messages

1. What do you understand by good nutrition?
2. Who are the main sources of nutrition information in the community?
3. Could you name the areas that you need information to support infant feeding?
4. Suggest best strategies to provide/communicate infant and young child feeding information?
5. Recommend target audiences for infant and young child feeding messages in your community.

Community social support for caregivers

1. Who are the main caregivers for children 6-36months in the community?
2. How are the caregivers of children 6-36 months going to benefit from the KARI/McGill food security project?
3. How are the children 6-36 months going to benefit from the project?
4. Are there any foods children are traditionally not allowed to eat and why?
5. What kind of resources relating to food and nutrition exist in the community?
6. Who controls these resources at household level? How and why does that affect child nutrition?
7. Which are the social support services available for women during the complementary feeding period (*who, what do they do and how do they support?*)
8. How do these services enhance or undermine feeding of child (introduction, nutritional quality, frequency and amount given of complementary feeding, Introduction, frequency and continuation of b/feeding)?

Breastfeeding

Exclusive breast feeding

1. Should you breastfeed your child? Why?
2. How long after delivery should a child be introduced to breast milk?
3. At what age do mothers introduce other feeds to infants apart from breast-milk?
4. What is the meaning of breastfeeding only/exclusive breastfeeding, as understood by the community?
5. For how long do mothers exclusively breastfeed without giving any other liquids or solid foods?
6. Are there any special circumstances where a mother is not supposed to breastfeed? (Culturally, when sick, etc)

Duration of breastfeeding

1. When do mothers stop breast feeding?

Complementary Feeding

1. What types of foods do we feed our children (6-36mons) in this community?
2. How does a mother decide that the child has eaten enough food for the meal for proper health and growth?
3. During food preparation what efforts do mothers make to make the food suitable and appealing to the child? (probe for flavor/taste, texture and appealing to the eyes)
4. What are main sources of food for most households in this community?

5. How are the crops being emphasized for growth by KARI being used to promote children's nutritional status in this community?
6. What factors prevent appropriate complementary feeding?
7. Are there times when children are not allowed to eat certain foods? When & why?
8. Are there medicinal plants/fruits that are used to promote child health? Name some of them.

Traditional leafy vegetables

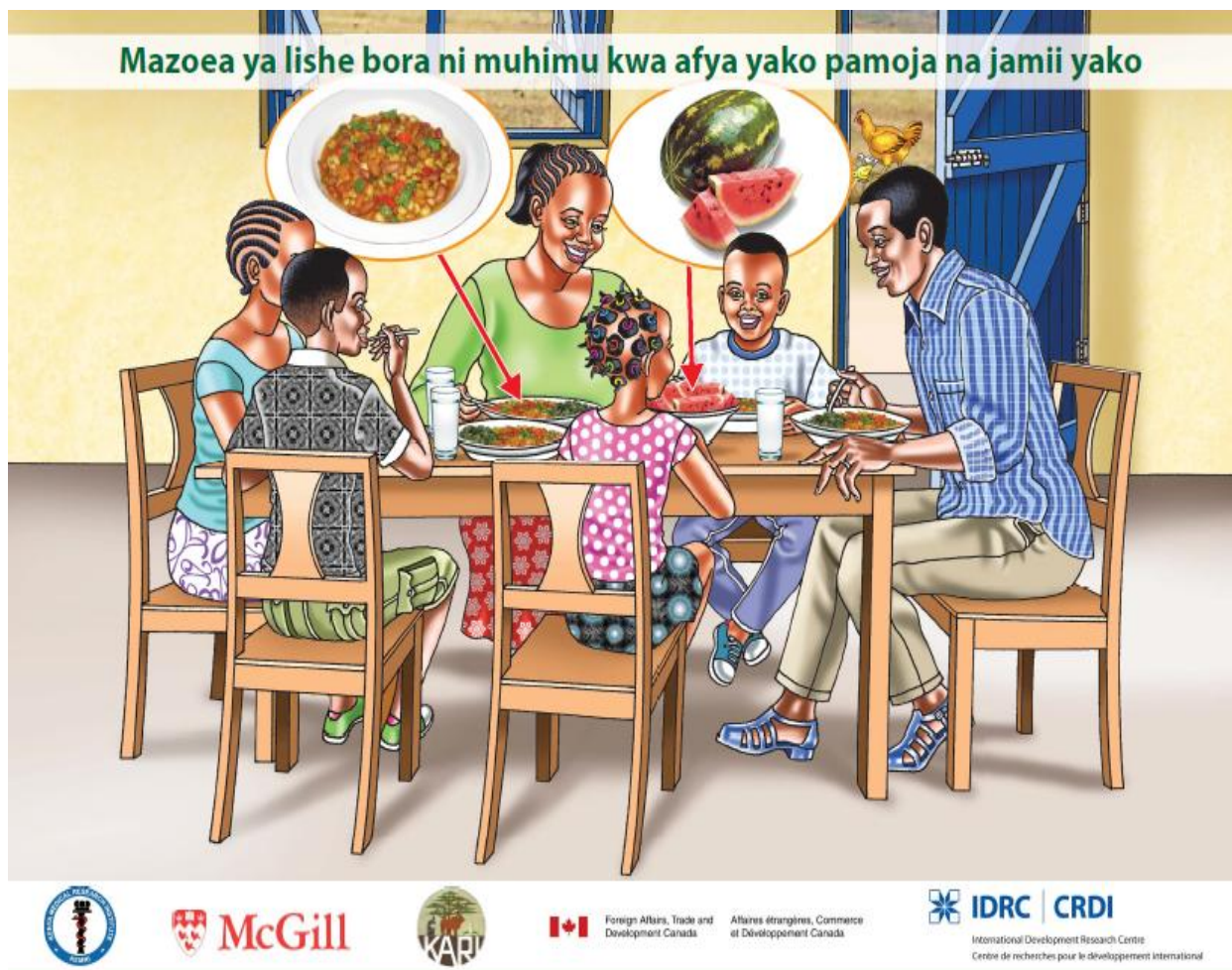
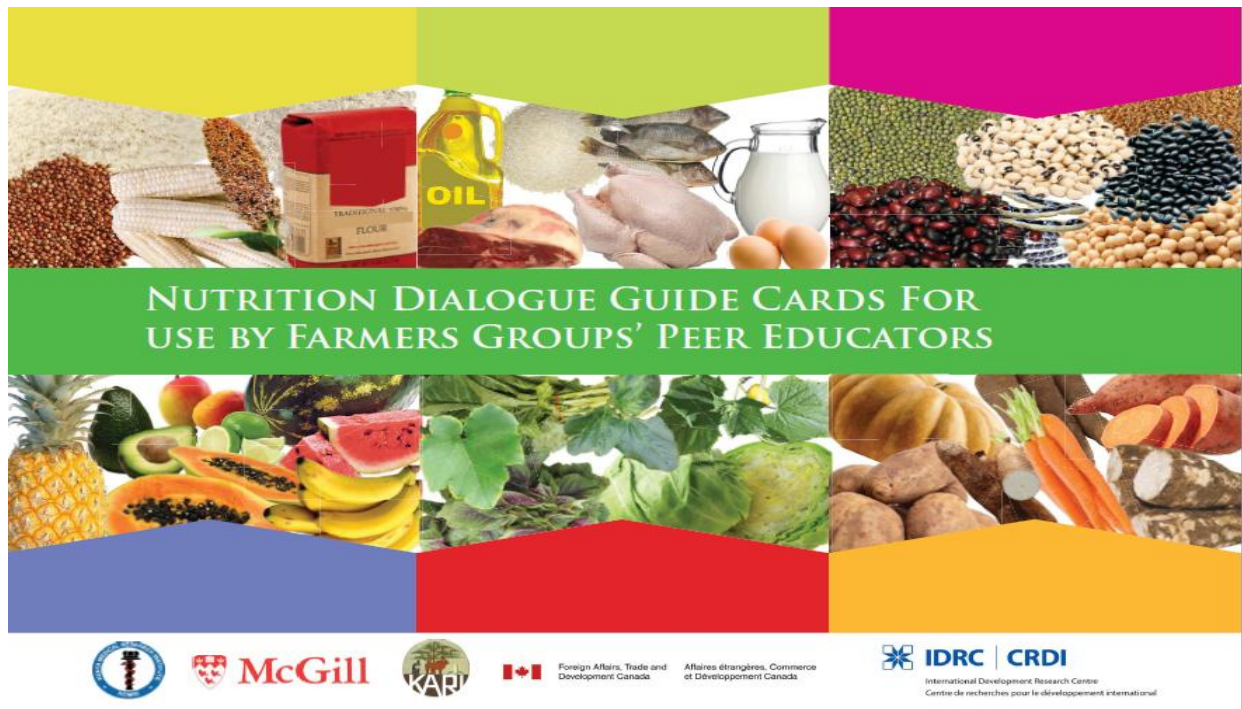
1. What are the commonly used vegetables in your community? Why they are commonly consumed?
2. What are the main sources of vegetables in your community?
 - a) Own production
 - b) Buy
3. Are there any particular culturally preferred (or not preferred) vegetables for specific groups? Which ones are those?
4. If there is, why are the specific groups hindered from eating this type of vegetables?

What are your suggestions on improving child feeding practices in this community?

N/b: This form will be useful for socio demographic data capture

[illegible]

[DIALOGUE CARDS - Attached separately]



Appendix 7: Selected Photographs



Teaching session on use of Dialogue Cards for Nutrition education



FGD session